-Form-C-104 -Rev. 02/2009

# VALUE ENGINEERING CHANGE PROPOSAL MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal Final Proposal	Date 7/20/10
Contract ID 100618-601	Job No. <u>J6U1028B</u>
County St. Charles 364/94	Original Bid Cost <u>\$24,488,236.57</u>
Contractor Fred Weber, Inc.	By Brett Lennon
Designed By MODOT	Phone 314-316-6154
VECP# 10-80 (to be completed by C.O.)	VECP Or PDVECP
<ol> <li>Description of existing requirements and proposed See attached sheet.</li> </ol>	change(s). Advantages/Disadvantages
2. Estimate of reduction in construction costs. \$2	9,717.03
<ol> <li>Prediction of any effects the proposed change(s) will maintenance and operations.</li> <li>None</li> </ol>	ll have on other department costs, such as
<ol> <li>Anticipated date for submittal of detailed change(s)</li> <li>Specifications.</li> </ol>	of items required by Section 104.6 of the
8/16	5/10
(da	· · · · · · · · · · · · · · · · · · ·
<ol> <li>Deadline for issuing a change order to obtain maxim contract completion time or delivery schedule.</li> </ol>	num cost reduction, noting the effect of
9/1/10	
(date)	(effect)
S. Dates of any marriage or consument submission of t	the same proposal
6. Dates of any previous or concurrent submission of t	
`N/.	
(date and/	or dates)

#### \*\* Portion Below This Line To Be Filled Out by MoDOT \*\*

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Com	nents: I recommend	d approval. The Excavation quantity needs ice personnel. Additionally, the excavat class 4 since it is greater than	to be Verifical					
	by project off	ice personnel. Additionally, the excava	tion class should					
	be class A no	t class 4 since it is greater than	18" outside the					
	box.	11/1 1	,					
		Maday (11)	8-10-10					
		Submitted By Resident Engineer	Date					
Com	nents:							
	Must have co	poperation between contractors for	this to work.					
	Recommend ar	pproval as long as both contractors	are in					
	agreement to	move forward with this change.						
		Digitally signed by M DN: cn=Matthew Buc	atthew Budd ld, o=MoDOT, ou=D6 Construction					
X	Approval		-Matthew.Budd@modot.mo.gov, c=US					
	Recommended							
	Rejection	District Engineer Date						
	Recommended							
Com	ments:							
		N / A - Not a Federal Oversight Projec	it l					
	Approval	,						
	Recommended	Federal Highway Administration	Date					
	Rejection Recommended	Required for FHWA Full Oversight Projects	Duto					
Com	Ments: Approved on Glascock. 8/	the merit of the proposal and the comments of 18/2010	f the district. Denis					
<b>57</b> 1		Digitally signed by Denis C DN: cn=Denis Glascock, c Glascock@modot.mo.gov Date: 2010.08.18 08:14-29	:=US, o=MoDOT, ou=3H35, email=Denis.					
X	Approval Rejection	State Construction and Materials Engineer	Date					
, <del></del>	redoction	——————————————————————————————————————						

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA Value Engineering Administrator – MoDOT, P. O. Box 270, Jesses City, MO 65102

Description of existing requirements and proposed change(s).
 Advantages/Disadvantages

Currently temporary shoring is set up for the 8x10 box culvert on Mid Rivers Mall Drive. Shoring is set up on both jobs; J6U1028S contracted to Dave Kolb Grading and J6U1028B contracted to FWI. Kolb currently has to install temporary shoring to retain their fill from going off their job limits and going over the area where the 8x10 box culvert is to be constructed, which is shown to be completed before work on J6U1028B is to begin in that area. The current plans call for FWI to shore Kolb's existing shoring in Stage I to make an excavation for the 8x10 box culvert. By Kolb and FWI coordinating their work the requirement for shoring at this area can be eliminated for both contractors. Additional class 4 excavation will be required by FWI because of having to excavate the side that would have been shored at a 1:1 slope. Eliminating the need for temporary shoring will improve the construction schedule and will provide for a safer work place.

# Savings Summary:

Class 4	Quantity 324	CY	<u>Unit Price</u> \$47,50	<u>Total</u> -\$15,393.52
Shoring	1	LS	\$45,110.55	\$45,110.55
			Savings	\$29,717.03
	4		FWI	\$14,858.52
			MODOT	\$14,858.52

### Additional Class 4 Excavation:

\*figured at 1:1 Slope

Length (FT)	Cut (FT)	Width (FT)	<u>CY</u>
175	10	10	324

# Temporary Shoring:

<sup>\*</sup>See attached sheet

Fred Weber, Inc.

Brett Lennon

BL100601 Route 364

DIRECT COST REPORT

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Activity Resource	Desc	Pcs	Quantity U	nit		Unit Cost	Labor 1	Perm Material	Constr Mall/Exp		Sub- Contract	Total	
BID ITEM = Description =	110 CLE TEMPORARY SHORING	BNT# = :	2065500	Lat	id Item Unit=	SCHEDI LS	ULE: 1 TakeoffQ	10	1.000	Fnor	Quan:	1.000	
	TENFORACI SHOKING	~~~~~~~		Particular Separation	- אונט	LO	Takcon Q	morrowit	1,000	- Isua	Quan.	1.000	
24135	SpecificDriving				(Quan	25,220.00	SF Hrs/	Sim i	0:00 Cal.	50. WC	PMO6003		
24135	Sheet Pile Driving			35.00	CH	Prod:	149.1429	UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
2F\$Z27	PZ 27 Sheet Pile	1.00	5,220.00 SI	P		0.000							
8HCRAWCRAN	Crawler Cranes	1.00	35.00 H			200,000				7,000		7,000	
MAHEIVM8	Vibratory Hammer	1.00	35.00 H	-		75.000				2,625	•	2,625	
CARP	Carpenters STL	2.00	70.00 M			32.480	4,797					4,797	
CARPF	Carpenter Foreman STL	1.00	35,00 M			33,980	2,489					2,489	
OILR	Oiler STL	1.00	35.00 M			24.520	2,272					2,272	
OPER	Operator STL	2.00	70.00 M			28.820	5,108		* * *		$v_{i_1},\dots,v_{i_n},\dots,v_{i_n}$	5,108	a. 1
\$24,290.28	0.0402 MH/	SF	210.00 M	H .		[1.526]	14,665			9,625		24,290	
24140 1647	SheetiPileiPulling				Olan	75.220.00	SE HE	Sim ii	0.00 (Cal	50 - W.C	MO6003		
24135	Slicet Pile Driving		THE RESERVE THE PROPERTY OF THE	30.00		Prod:	174.0000		Lab Pcs:	6.00	Eqp Pcs:	2,00	
8HCRAWCRAN	•	1.00	30.00 H	R		200,000				6,000	••	6,000	
8MVIBHAM	Vibratory Hammer	1.00	30.00 H	R.		75.000				2,250		2,250	
CARP	Carpenters STL	2.00	60.00 M	H		32.480	4,112					4,112	
CARPF	Carpenter Foreman STL	1.00	30.00 M	H		33.980	2,133					2,133	
OILR	Oiler STL	1.00	30.00 M	H		24.520	1,947					1,947	
OPER.	Operator STL	2,00	60.00 M	H		28.820	4,378		•			4,378	
\$20,820.27	0.0344 MH/	SF	180.00 M	H		[ 1,308 ]	12,570			8,250		20,820	
── Item T	Cotals: 110 -	- TEMP	ORARY SHO	RING		-							
\$45,110.55	390.0000 MH/LS		390.00 M	H	[1	4789.61]	27,236			17,875		45,111	
45,110,550	1 LS						27,235.55			17,875.00	45	5,110.55	
\$45,110.55	*** Report Totals **	*	390.00 M	H			27,236			17,875		45,111	

>>> indicates Non Additive Activity

Holding account totals will not be added to the report totals because the distribution is instead added to the various bid items.

----Report Notes:----

The estimate was prepared with TAKEOFF Quantities.

This report shows TAKEOFF Quantities with the resources.

Bid Date: 06/18/10 Owner: MoDot Engineering Firm: Bstimator-In-Charge:

#### JOB DOES NOT HAVE NOTES

[ ] in the Unit Cost Column = Labor Unit Cost Without Labor Burdens

Calendars are found in crew and labor codes and have the format XXXdY where

XXX = The Calendar and Y = The Starting Day of the Week with Day I = Monday, etc.

40 40 HR WEEK

42 40 HR WBEK DOUBLE SHIFT

45 45 HR WEEK

50 50 HR WBBK

60 60 HR WEEK 70 70 HR WEEK

N2 Premium Work

N3 Premium Work 5 Days / Week

<sup>\*</sup> on units of MH indicate average labor unit cost was used rather than base rate.

Fred Weber, Inc. BL100601 Brett Lennon

Route 364

DIRECT COST REPORT

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Activity Resource	Desc	Pos	Quantity Unit		Unit Cost	Pe Labor Mate	erm rial M	Constr Intl/Exp	Equip Sub- Ment Contract	Toial
BID ITEM Description =	= 110 TEMPORARY SHO	CLIENT# = 20 ORING	65500	Land Item Unit=	SCHEDU LS	LB: 1 Takeoff Quan:	100	1.000	Engr Quan;	1,000
N4 N5 WK	Premium Work Night Premium Weekend Work	7 Days / Week								e e e e e e e e e e e e e e e e e e e

# VALUE ENGINEERING CHECK SHEET

### TYPE OF WORK

(Check one that applies)

- o Bridge/Structure/Footings
- o Drainage Structures (RCP, RCB, CMP's, ect.)
- o TCP/MOT
- o Paving (PCCP, ect.)
- o Grading/MSE Walls
- o Signal/Lighting/ITS
- ✓ Misc

### SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

This VE involves two adjacent contractors/contracts that required shoring for each contract. By adjusting schedules, coordinating the work, and performing some additional excavation, the shoring could be eliminated.

## SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.